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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,844	07/16/2003	Janet Patterson	73537 (1328)	1787
7590 03/06/2006 Maxwell Technologies, Inc. Att. Intellectual Property Dept. 9244 Balboa Ave. San Diego, CA 92123			EXAMINER NGUYEN, DONGHAI D	
			ART UNIT 3729	PAPER NUMBER

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/621,844	Applicant(s) PATTERSON, JANET	
	Examiner Donghai D. Nguyen	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 1-21 and 27-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/25/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 01 July 2005 has been considered and made of record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,635,754 to Strobel et al in view of US Patent 6,384,473 to Peterson.

Regarding claim 22, Strobel et al disclose a method of shielding an integrated circuit device comprising forming package layers each having radiation shielding base (510, 810, etc.), a package (500, 800, etc.) and circuit die (see Strobel 580, 880, etc.; Figs. 4D, 5D, etc.), and a radiation shielding lid (570/870) coupling to a package layer. Peterson et al teach to couple/stack two device packages each having a base (16'), a package (30') and circuit die (100, see Fig. 3B) together by coupling the bottom of the first base (16) to the top of the second package (See Fig. B) to form double package for housing multiple devices (Col. 11, lines 27-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Strobel by stacking of at least two or more package layers together as taught by Peterson et al as to form double package for housing multiple devices.

Regarding claims 23 and 24, noting Strobel et al disclose the radiation shielding lid and radiation shielding bases are formed from a high Z material (Fig. 4D).

Regarding claims 25 and 26, noting Strobel et al disclose circuit dies receive an amount of radiation less than the total dose tolerance of the second circuit die (Col. 7, lines 62-67).

4. Claim 22 is also rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al in view of Strobel et al.

Peterson et al disclose a method of shielding an integrated circuit device comprising: forming a first package layer (9, see Fig. 6B) comprising a first base (16'), a first package (30') and a first circuit die (100); forming a second package layer (8) comprising a second base (16'), a second package (30') and a second circuit die (100); coupling a bottom of the first base (16') to a top of the second package layer (8, See Fig. 6B) and coupling a lid (42, inherently) to the first package layer (9 see Fig. 3B). Peterson et al do not teach the base and lid are radiation shield and the step of coupling a lid to the first package layer. Strobel et al teach the radiation shield base (510/810) and coupling the radiation shield lid (570/870) to the first package layer (500/800 see Strobel Figs. 4D and 5D) for withstanding the thermal and radiation hazards (see Strobel Col. 3, line 65 to Col. 4, line 21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Strobel et al including base of radiation shield and the lid onto the invention of Peterson et al in order to form a desired base structure for preventing radiation penetrating through the integrated circuit device.

Response to Arguments

5. Applicant's arguments with respect to claims 22-26 have been considered but are moot in view of the new ground(s) of rejection.

6. This application contains claims 1-21 and 27-50 drawn to an invention nonelected with traverse in Paper filed on 12/21/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (571)-272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN
February 22, 2006


MINH TRINH
PRIMARY EXAMINER